



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0807; Project Identifier AD-2022-00214-R; Amendment 39-22188; AD 2022-20-04]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bell Textron Canada Limited Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding airworthiness directive (AD) 2021-26-08, which applied to certain Bell Textron Canada Limited Model 206, 206A, 206A-1, 206B, 206B-1, 206L, 206L-1, 206L-3, and 206L-4 helicopters. AD 2021-26-08 required removing certain nuts from service; installing newly designed nuts; applying a specific torque, and a torque stripe to each newly installed nut; after the installation of each newly designed nut, inspecting the torque; and depending on the inspection results, either applying a torque stripe, or performing further inspections and removing certain parts from service. AD 2021-26-08 also prohibited installing any affected nut on any tail rotor drive shaft (TRDS) disc pack (Thomas) coupling. Since the FAA issued AD 2021-26-08, the FAA determined certain torque values and part numbers (P/Ns) need to be revised. This AD was prompted by reports of cracked or missing nuts installed on the TRDS Thomas couplings and the need to revise certain torque values and P/Ns in AD 2021-26-08. This AD requires removing certain nuts from service; installing newly designed nuts; applying torque and a torque stripe; and additional corrective actions if necessary. This AD also prohibits installing any affected nut on any TRDS Thomas coupling, as specified in a Transport Canada AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For Transport Canada material incorporated by reference (IBR) in this final rule, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; Internet [tc.canada.ca/en/aviation](http://tc.canada.ca/en/aviation). You may find the Transport Canada material on the Transport Canada website at [tc.canada.ca/en/aviation](http://tc.canada.ca/en/aviation). For Air Comm Corporation service information identified in this final rule, contact Air Comm Corporation, 1575 West 124th Ave. #210, Westminster, CO 80234; telephone (303) 440-4075; email [service@aircommcorp.com](mailto:service@aircommcorp.com); or at [aircommcorp.com](http://aircommcorp.com). For Bell service information identified in this final rule, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email [productsupport@bellflight.com](mailto:productsupport@bellflight.com); or at [bellflight.com/support/contact-support](http://bellflight.com/support/contact-support). You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is IBRed is also available in the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-0807.

#### **Examining the AD Docket**

You may examine the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-0807; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the Transport Canada AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety

Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-26-08, Amendment 39-21867 (86 FR 72833, December 23, 2021) (AD 2021-26-08). AD 2021-26-08 applied to Bell Textron Canada Limited Model 206, 206A, 206A-1, 206B, 206B-1, 206L, 206L-1, 206L-3, and 206L-4 helicopters, with nut P/N MS21042L4 or P/N MS21042L5 installed on the TRDS Thomas couplings. AD 2021-26-08 required removing certain nuts from service, installing newly designed nuts, and applying a specific torque and a torque stripe to each newly installed nut. AD 2021-26-08 also required, after the installation of each newly designed nut, inspecting the torque and, depending on the inspection results, either applying a torque stripe or performing further inspections and removing certain parts from service. Finally, AD 2021-26-08 prohibited installing any affected nut on any TRDS Thomas coupling. The FAA issued AD 2021-26-08 to prevent failure or loss of a nut on any TRDS Thomas coupling.

AD 2021-26-08 was prompted by Transport Canada AD CF-2020-15, dated May 13, 2020 (Transport Canada AD CF-2020-15). Transport Canada, which is the aviation authority for Canada, issued Transport Canada AD CF-2020-15 to correct an unsafe condition for Bell Textron Canada Limited Model 206, 206A, 206A-1, 206B, 206B-1, 206L, 206L-1, 206L-3, and 206L-4 helicopters, all serial numbers. Transport Canada AD CF-2020-15 specifies for certain model helicopters, newly designed nuts cannot be installed because Supplemental Type Certificate (STC) SH2750NM and Transport Canada STC SH99-202 install a pulley at the Thomas coupling location causing insufficient clearance. Transport Canada advises, for certain model helicopters with STC SH2750NM or Transport Canada STC SH99-202 installed, different part-numbered nuts may be installed and are now required to be replaced with a new part-numbered nut that is not vulnerable to the unsafe condition.

The NPRM published in the *Federal Register* on June 30, 2022 (87 FR 39015). The NPRM was prompted by reports of cracked or missing nuts installed on the TRDS Thomas couplings. The NPRM was also prompted by the determination that certain P/Ns and certain torque values in paragraph (g) of AD 2021-26-08 need to be revised. Furthermore, the FAA advises that the 50-70 in lb torque values are only applicable to certain bolts and nuts, and a 150-180 in lb torque value is required for other bolts and nuts that are required to be installed by this AD. The FAA also advises that certain part-numbered nuts that are required to be installed according to AD 2021-26-08 need to be removed from service and replaced due to a certain pulley configuration. The NPRM proposed to require removing certain nuts from service; installing newly designed nuts; applying torque and a torque stripe; and additional corrective actions if necessary. The NPRM also proposed to prohibit installing any affected nut on any TRDS Thomas coupling, as specified in Transport Canada AD CF-2020-15.

The FAA is issuing this AD to prevent failure or loss of a nut on the TRDS Thomas couplings, which if not addressed could result in loss of the tail rotor and subsequent loss of control of the helicopter. See Transport Canada AD CF-2020-15 for additional background information.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

### **Conclusion**

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with Canada, Transport Canada, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. This AD is adopted as proposed in the NPRM, except the FAA has removed the note to the applicability paragraph and updated the identification of Model 206A-1 helicopters in the applicability paragraph to Model 206A-1 (OH-58A) helicopters to match the FAA type certificate data sheet. None of these changes will increase the economic burden on any operator.

### **Related Service Information Under 1 CFR Part 51**

Transport Canada AD CF-2020-15 requires the replacement of certain part-numbered nuts with newly designed nuts at each TRDS Thomas coupling and prohibits installing any affected nut on any TRDS Thomas coupling. The replacement includes applying torque, and a torque stripe.

The FAA reviewed Air Comm Corporation Service Bulletin SB 206EC-092619, Revision NC, dated September 26, 2019, which also specifies procedures for replacing the affected nuts with the newly designed corrosion-resistant nuts, but explains that affected helicopters equipped with Air Comm Corporation air conditioning systems installed under STC SH2750NM use the affected nut to attach a pulley onto the TRDS,

which causes clearance issues for the nuts to be installed at the coupling. Therefore, this service bulletin specifies replacing the nut with a lower profile nut.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Other Related Service Information**

The FAA also reviewed Bell Alert Service Bulletin (ASB) 206-19-136, dated August 27, 2019, for FAA-certificated Model 206, 206A-series, and 206B-series helicopters, and non FAA-certificated Model TH-67 helicopters; and Bell ASB 206L-19-181, dated August 27, 2019, and Revision A, dated August 29, 2019, for Model 206L, 206L-1, 206L-3, and 206L-4 helicopters. This service information specifies procedures for replacing the affected nuts with the newly designed corrosion-resistant nuts. Revision A of Bell ASB 206L-19-181 corrects a typographical error.

Additionally, the FAA reviewed Bell Service Instruction BHT-206-SI-2052, Revision 1, dated October 14, 2010. This service information specifies procedures to upgrade Model 206L-1 and 206L-3 helicopters to allow operations at an increased internal gross weight.

#### **Differences Between this AD and Transport Canada AD CF-2020-15**

Transport Canada AD CF-2020-15 requires compliance with certain actions within 600 hours air time or within the next 24 months, whichever occurs first, whereas this AD requires compliance within 600 hours time-in-service only. Service information referenced in Transport Canada AD CF-2020-15 specifies if any P/N MS21042L4 nuts are found loose or damaged, reporting the location and providing the information to Bell, whereas this AD requires if any P/N MS21042L4 nuts are found loose or damaged, inspecting each TRDS Thomas coupling, including each bolt, nut, and washer, for any elongated holes, fretting on the fasteners, and damaged fasteners, and depending on the results of the inspection, removing from service each affected part and replacing it with an airworthy part.

## **Costs of Compliance**

The FAA estimates that this AD affects 1,359 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Replacing each affected nut with the newly designed nut and applying torque and a torque stripe takes about 4 work-hours, and parts cost about \$75 for an estimated cost of \$415 per nut replacement and \$563,985 per nut replacement for the U.S. fleet.

In addition, the costs of the actions that are part of the required replacement are as follows:

If required, due to loose or damaged nuts found, inspecting each TRDS Thomas coupling, and each bolt, nut, and washer for elongated holes and fretting on the fasteners takes about 0.5 work-hour for an estimated cost of \$43 per inspection.

If required, replacing each TRDS Thomas coupling takes about 4 work-hours, and parts cost about \$4,000 for an estimated cost of \$4,340 per TRDS Thomas coupling replacement.

If required, replacing a bolt or washer takes a minimal amount of time and parts cost a nominal amount.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2021-26-08, Amendment 39-21867 (86 FR 72833, December 23, 2021); and
- b. Adding the following new AD:

**2022-20-04 Bell Textron Canada Limited:** Amendment 39-22188; Docket No. FAA-2022-0807; Project Identifier AD-2022-00214-R.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**



This AD replaces AD 2021-26-08, Amendment 39-21867 (86 FR 72833, December 23, 2021) (AD 2021-26-08).

**(c) Applicability**

This AD applies to Bell Textron Canada Limited Model 206, 206A, 206A-1 (OH-58A), 206B, 206B-1, 206L, 206L-1, 206L-3, and 206L-4 helicopters, all serial numbers, certificated in any category.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6510, Tail Rotor Drive Shaft.

**(e) Unsafe Condition**

This AD was prompted by reports of cracked or missing nuts installed on the tail rotor drive shaft (TRDS) disc pack (Thomas) couplings. The FAA is issuing this AD to prevent failure or loss of a nut on the TRDS Thomas couplings. The unsafe condition, if not addressed, could result in loss of the tail rotor and subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2020-15, dated May 13, 2020 (Transport Canada AD CF-2020-15).

## **(h) Exceptions to Transport Canada AD CF-2020-15**

(1) Where Transport Canada AD CF-2020-15 requires compliance in terms of air time, this AD requires using hours time-in-service (TIS).

(2) Where Transport Canada AD CF-2020-15 refers to the effective dates specified in paragraphs (h)(2)(i) and (ii) of this AD, this AD requires using the effective date of this AD.

(i) October 9, 2019 (the effective date of Transport Canada AD CF-2019-34, dated September 25, 2019).

(ii) The effective date of Transport Canada AD CF-2020-15.

(3) Where Transport Canada AD CF-2020-15 defines Group 1 helicopters as those models “that have not been modified by installing STC SH2750NM or STC SH99-202,” replace “that have not been modified by installing STC SH2750NM or STC SH99-202” with “that have not been modified by installing STC SH2750NM.”

(4) Where Transport Canada AD CF-2020-15 defines Group 4 helicopters as those models “that have been modified by installing STC SH2750NM or STC SH99-202,” replace “that have been modified by installing STC SH2750NM or STC SH99-202” with “that have been modified by installing STC SH2750NM.”

(5) Where Transport Canada AD CF-2020-15 requires compliance within 600 hours air time or 24 months, whichever occurs first, this AD requires compliance within 600 hours TIS only and does not allow a compliance time of 24 months.

(6) Where any paragraph of Transport Canada AD CF-2020-15 specifies to replace part number (P/N) MS21042 nuts with P/N NAS9926 nuts, this AD requires removing P/N MS21042 nuts from service and replacing with P/N NAS9926 nuts.

(7) Where any paragraph of any service information referenced in Transport Canada AD CF-2020-15 specifies to replace P/N MS21042L4 nuts with P/N 90-132L4 nuts, this AD requires removing P/N MS21042L4 nuts from service and replacing with P/N 90-132L4 nuts, in accordance with Air Comm Corporation Service Bulletin SB 206EC-092619, Revision NC, dated September 26, 2019 (SB 206EC-092619 Rev NC).

(8) Where any paragraph of any service information referenced in Transport Canada AD CF-2020-15 specifies to replace P/N MS21042L5 nuts with P/N 90-132L5

nuts, this AD requires removing P/N MS21042L5 nuts from service and replacing with P/N 90-132L5 nuts, in accordance with SB 206EC-092619 Rev NC.

(9) Where any paragraph of any service information referenced in Transport Canada AD CF-2020-15 specifies if any P/N MS21042L4 nuts are found loose or damaged, report at which location and provide the information to Product Support Engineering at [productsupport@bellflight.com](mailto:productsupport@bellflight.com), this AD requires if any P/N MS21042L4 nuts are found loose or damaged, before further flight, inspecting each TRDS Thomas coupling, including each bolt, nut, and washer, for any elongated holes, fretting on the fasteners, and damaged fasteners. If there is any elongated hole, fretting on the fasteners, or damaged fasteners, this AD requires before further flight, removing from service each affected part and replacing it with an airworthy part.

**(i) No Reporting Requirement**

Although the service information referenced in Transport Canada AD CF-2020-15 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety

Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Air Comm Corporation Service Bulletin SB 206EC-092619, Revision NC, dated September 26, 2019.

(ii) Transport Canada AD CF-2020-15, dated May 13, 2020.

(3) For Air Comm Corporation service information identified in this AD, contact Air Comm Corporation, 1575 West 124th Ave. #210, Westminster, CO 80234; telephone (303) 440-4075; email [service@aircommcorp.com](mailto:service@aircommcorp.com); or at [aircommcorp.com](http://aircommcorp.com). For Transport Canada AD CF-2020-15, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email [TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca](mailto:TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca); Internet [tc.canada.ca/en/aviation](http://tc.canada.ca/en/aviation). You may find the Transport Canada material on the Transport Canada website at [tc.canada.ca/en/aviation](http://tc.canada.ca/en/aviation).

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-0807.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on September 19, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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